

# NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROCESS

## Steps to SWEIS Development

■ Opportunities for Public Input

Notice of Intent to Prepare SWEIS

Public Scoping Period

Preparation of Draft SWEIS

Notice of Availability for Draft SWEIS

Public Comment Period

Preparation of Final SWEIS

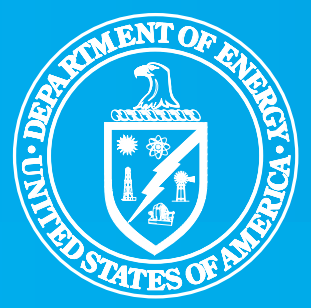
Notice of Availability of Final SWEIS  
Published in the Federal Register

30-Day Waiting Period

Record of Decision







# OTHER DOE OPERATIONS

## U.S. DEPARTMENT OF ENERGY NATIONAL TRAINING CENTER

The DOE National Training Center (NTC) promotes the development, maintenance, and enhancement of a qualified and professional workforce that possesses the competencies necessary to accomplish DOE missions through relevant, effective training and professional development programs in technical disciplines, especially Safeguards and Security and Safety. This includes providing oversight and program management of Safety and Security training at DOE facilities under DOE Headquarters Office of Health, Safety and Security, as well as other national security and emergency operations customers. NTC facilities consist of a Main Campus, Live Fire Range, and Integrated Safety and Security Training and Evaluation Complex.

## AGENT OPERATIONS WESTERN COMMAND OPERATIONS AND TRAINING FACILITY

The Agent Operations Western Command Operations and Training Facility consists of one administrative building and one Pro Force guard post building. It also has an 18-space tractor trailer parking area that supports the Office of Safeguards Transportations mission. The compound has approximately 130 federal and contractor employees. Activities are mainly administrative or training related.

## NNSA OST AVIATION OPERATIONS

The NNSA Office of Secure Transportation (OST) Program Office for Aviation Operations (POAO) operates and maintains aircraft in support of the NNSA and OST stockpile stewardship mission. The aircraft are operated by Federal pilots and maintained by a support services contractor. POAO operates from a KAFB hangar facility permitted to NNSA.

## ALBUQUERQUE COMPLEX

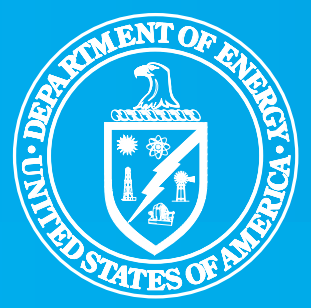
The Albuquerque Complex resides on KAFB on approximately 27 acres of land. It is currently comprised of thirty-one distinct buildings, both permanent and temporary, constructed of various materials including metal, wood frame, and masonry. The site houses approximately 1,150 DOE/NNSA federal and contractor employees in about 339,000 square feet of administrative office space. The activities within the facility are administrative in nature.

## KIRTLAND OPERATIONS

Kirtland Operations is an applied-science and engineering organization engaged in technical, operational, mechanical and logistical support through research, analysis, testing, and field operations that support NNSA's Secure Transportation and Emergency Response missions, as well as the national laboratories, other DOE contractors, the Department of Defense, and other Federal and non-Federal agencies.







# SUPPORT FACILITIES



## RADIOACTIVE AND MIXED WASTE MANAGEMENT FACILITY (RMWMF)

The RMWMF serves as a centralized facility for characterization, treatment, repackaging, and storage of low-level waste, transuranic waste, and mixed waste. Waste may be stored until an off-site facility can be identified and that can accept the waste. The facility allows for SNL/NM personnel to prepare the waste to be shipped for treatment and disposal in accordance with specific requirements regarding waste certification, packaging, and transport.



## RADIATION PROTECTION SAMPLE DIAGNOSTICS (RPSD)

The RPSD program provides radioactive sample analysis in support of Environment, Safety, and Health programs at SNL/NM. In addition, the RPSD program uses radiation diagnostics to provide solutions for other SNL/NM organizations with radiation measurement challenges, as well as technical guidance to organizations external to SNL/NM.

## HAZARDOUS WASTE MANAGEMENT FACILITY (HWMF)

The HWMF is a Resource Conservation and Recovery Act-permitted facility for the packaging, segregation, and storage of hazardous waste. Hazardous waste generated at SNL/NM is transported from generators' accumulation points to the HWMF where it is prepared for off-site shipment to a recycling, treatment, or disposal facility.



## REAPPLICATION SERVICES (RS)

RS is used for reutilization or disposition of excess SNL/NM property, equipment, and materials. One-hundred percent of material received at RS is reutilized within SNL/NM organizations, other government facilities, or universities; recycled as scrap; or sold at auction.







# RESEARCH FACILITIES

## EXPLOSIVE COMPONENTS FACILITY (ECF)

The ECF is used for research and development on a variety of energetic material and explosive components.

## NATIONAL SOLAR THERMAL TEST FACILITY (NSTTF)

The NSTTF provides experimental engineering data for the design, construction, and operation of unique components and systems in proposed solar thermal electrical plants planned for large-scale power generation. The NSTTF serves as the test resource for the DOE program to develop concentrating solar power and as a designated user facility available for use by other researchers, including government contractors and agencies, research institutes, universities, and private companies.

## CENTER FOR INTEGRATED NANOTECHNOLOGIES (CINT)

The CINT is used to establish the scientific principles that govern the design, performance, and integration of nanoscale materials by providing access to tools and expertise to explore the continuum from scientific discovery to the integration of nanostructures into the micro and macro worlds.

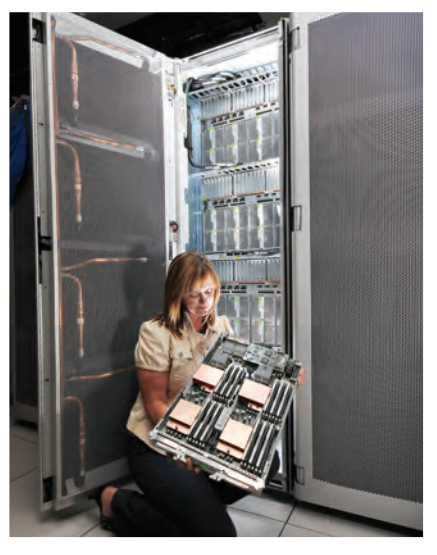
## ROBOTIC VEHICLE RANGE (RVR)

The RVR is used to create, test, and evaluate teleoperated and autonomous robots and portable sensors. Different parts of the RVR are used to test, evaluate, and demonstrate remote sensor technology for the detection and movement of land-based objects; to test and evaluate fixed perimeter sensors; and to develop and test new concepts in video surveillance security systems.



## CORPORATE COMPUTING FACILITY (CCF)/HIGH PERFORMANCE COMPUTING (HPC)

The CCF/HPC and Red Storm Facility provide server, blade, and cluster computing services (unclassified and classified) for business enterprises and programmatic research and development applications. These services are utilized to support all mission-related activities (e.g., science and technology research, weapons engineering and product realization) and functional business units (e.g., finance, human resources and compensation, procurement).



## JOINT COMPUTATIONAL ENGINEERING LABORATORY (JCEL) DATA CENTER

The JCEL Data Center is a computing facility supporting development of advanced science-based nuclear stockpile stewardship tools, and creation of a prototype for a "virtual enterprise" to ensure rapid development and application of high-performance computing, modeling, and simulation.



## PHOTOVOLTAIC AND GRID INTEGRATION LABORATORIES

The Photovoltaic (PV) and Grid Integration Laboratories facilitate research to reduce costs, enhance performance, and increase reliability of integrated PV systems, to better understand the impacts of PV and other distributed generation technologies on the electric grid infrastructure.



## INTEGRATED MATERIALS RESEARCH LAB (IMRL)

The IMRL is used to conduct materials and advanced components research. These research activities include laboratory studies in chemistry, physics, and alternative energy technologies. Experimental work is augmented by advanced computer modeling and simulation techniques.



## SANDIA LIGHTNING SIMULATOR (SLS)

The SLS allows test objects to be subjected to simulated lightning currents at severe levels. The SLS can be used to certify or evaluate hardware or to perform basic or applied research.



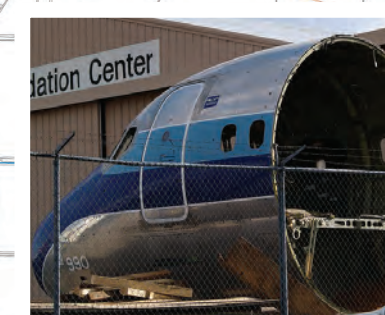
## ION BEAM LABORATORY (IBL)

The IBL is used for basic and applied research and establishment of theories and models in the areas of materials science, radiation effects, solid-state physics, and accelerator physics.



## AIRWORTHINESS ASSURANCE NONDESTRUCTIVE INSPECTION VALIDATION CENTER (AANC)

The Federal Aviation Administration (FAA)/AANC hangar facility is operated by Sandia under contract to the FAA. The AANC provides validation facilities for existing and new aircraft inspection, maintenance, and repair techniques. The facility includes a specimen library of aircraft test samples and parts with natural or induced defects. The facility is configured to look like a maintenance hangar, but no aircraft maintenance is conducted in it. All aircraft and engine test beds have been decommissioned, and non-operable airplane mock-ups are used to simulate or stage hangar operations.

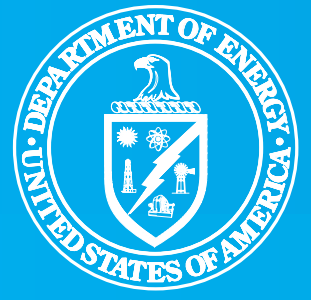


## PROCESSING & ENVIRONMENTAL TECHNOLOGY LABORATORY (PETL)

The PETL is a materials research and process development laboratory designed to carry out chemically intense research and enhance capabilities to perform research at the nanoscale level with highly sensitive optical and electromechanical equipment.



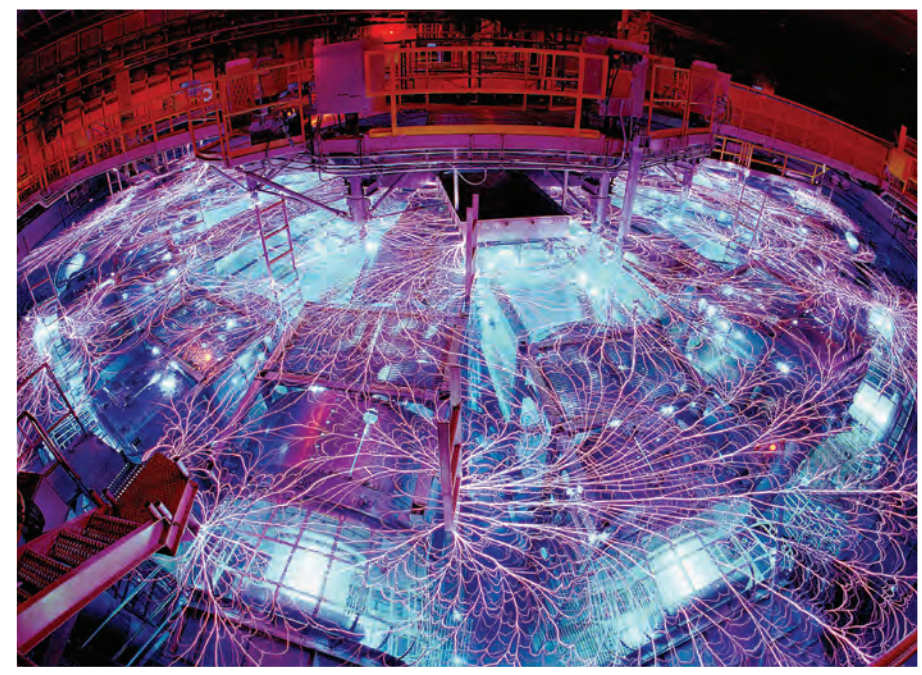




# PULSED POWER FACILITIES

## Z-MACHINE

The Z-Machine provides weapons systems survivability testing by simulating the X-rays produced by nuclear weapon detonation for the Inertial Confinement Fusion Program and weapons science research.

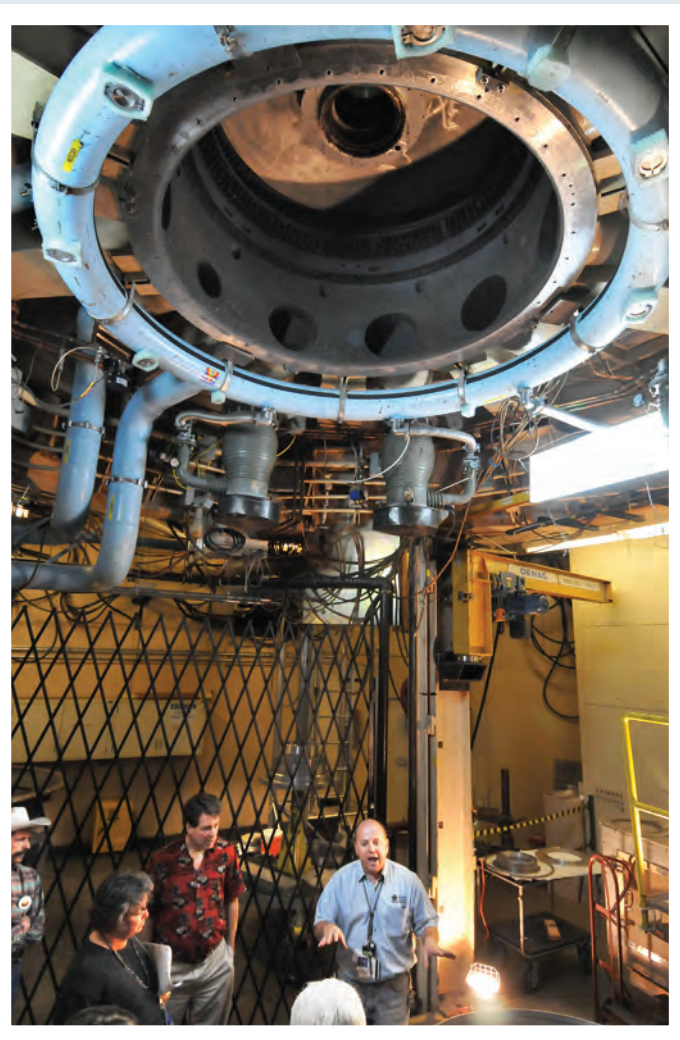


## RADIOGRAPHIC INTEGRATED TEST STAND (RITS)

The RITS is a short-pulse (70 nanosecond), high-energy (10 megaelectron-volt), high-current (120-kiloamp), inductive voltage adder accelerator. The purpose of this accelerator is to conduct research on the use of inductive voltage adder pulsed-power technology for advanced hydrodynamic radiography.



## SATURN ACCELERATOR

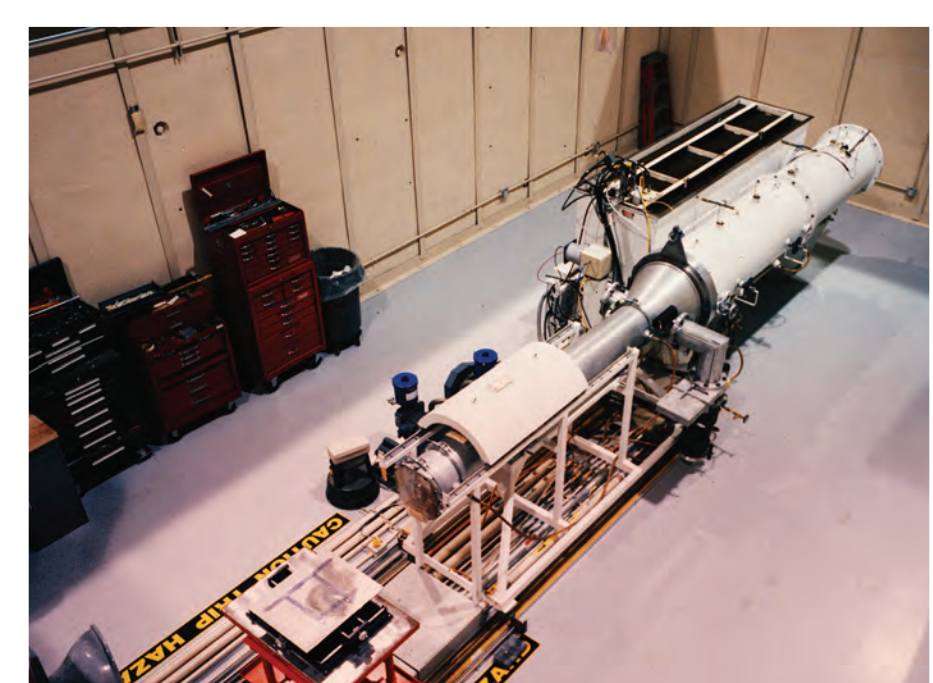


The Saturn accelerator is used for development and survivability testing of nuclear weapon subsystems and components. Saturn was designed and built to provide X-ray radiation environments with enhanced simulation fidelity, as well as to provide improved test exposure levels and test areas. Saturn can also operate in a plasma radiation source configuration, generating ultra-high intensity, soft X-ray environments.



## REPETITIVE HIGH ENERGY PULSED-POWER UNIT I (RHEPP-I)

The RHEPP-I serves as a tool for the technology development of continuous-operation, pulsed-power systems to demonstrate high-energy ion beams and industrial pulsed-power applications.



## SHORT-PULSE HIGH INTENSITY NANOSECOND X-RADIATOR (SPHINX)

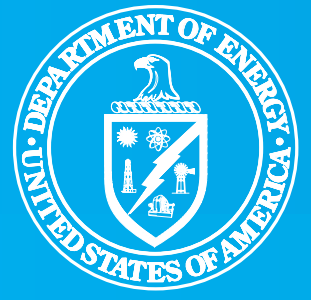
The SPHINX accelerator is a high-voltage, high-shot-rate, X-ray and electron beam accelerator. It provides radiation environments for testing components of nuclear weapons, and confirming codes used in the certification of nuclear weapons components.

## HIGH ENERGY RADIATION MEGAVOLT ELECTRON SOURCE III (HERMES III)

HERMES III is a short-pulse (20- to 30-nanosecond), high-energy (20-MeV) accelerator that provides intense gamma ray fields over very large areas. This testing provides realistic conditions associated with some aspects of a nuclear explosion radiation environment. The accelerator can also be reconfigured to accelerate light ions.







# OUTDOOR TRAINING & ENVIRONMENTAL TESTING FACILITIES

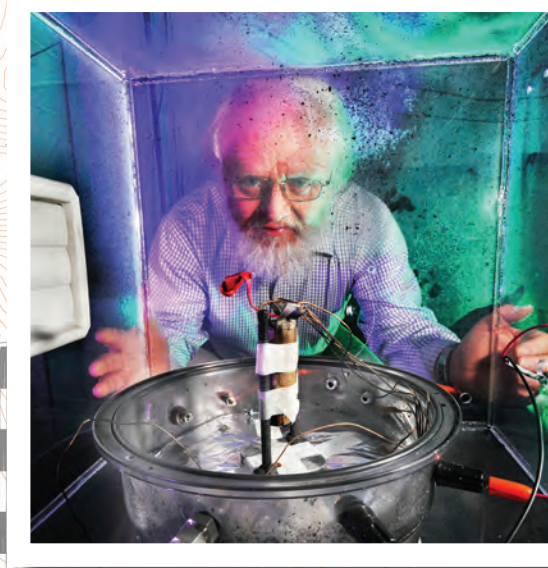
## LURANCE CANYON BURN SITE (LCBS)

The LCBS is specifically designed for the validation of analytical modeling and the functional certification of weapons systems. The LCBS is also used to test and evaluate the design integrity and performance of weapon components and shipping containers in the event of their accidental exposure to various fires. In addition, the LCBS is used extensively for transportation package certification, and to verify designs in transportation technology.



## AERIAL CABLE FACILITY (ACF)

The ACF provides the capability to simulate a variety of impact environments including gravity drop and high-velocity impact. It can also be used to simulate free flight along an aerial cable. Gravity drops are performed from a cable suspended between two ridges, while a rocket-assisted pull-down technique is used to provide impact velocities up to 1,100 feet per second.



## EXPLOSIVES APPLICATIONS LABORATORIES (EAL)

The EAL facilitates the design of complex explosives systems or subsystems (fragmenting warheads, etc.) and the assembling and testing of those systems in highly instrumented experiments. The EAL supports a wide array of explosives testing work with an emphasis on high speed data and video acquisition as well as flash radiograph work. The Explosives and Ballistics Test Complex provides training and support for novel energetic material formulation, mixing, testing, and characterization. The Explosives Applications and Containment Training Facility supports numerous technical areas including reactor safety technology, fuel-air systems, general explosive testing, nuclear material dispersion, and confinement technology testing.



## THUNDER RANGE

Thunder Range serves as a training area for the nuclear emergency response community and for testing and research on energetic materials.



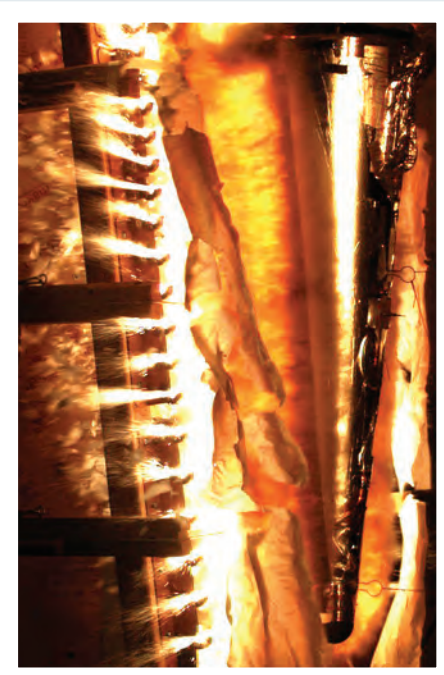
## SITE 9940

Site 9940 serves as a training area for Explosive Ordnance Disposal teams with realistic training aids and venues, and is used for conducting studies and research in the area of energetic threats.



## SHOCK THERMODYNAMICS APPLIED RESEARCH (STAR) FACILITY

The STAR Facility is a research and development laboratory for dynamic material characterization studies using shock compression. The STAR Facility is also used for ballistic testing to study fragmentation properties of materials.



## THERMAL TEST COMPLEX

The TTC provides a controlled environment in which to demonstrate the performance of components and assemblies under a variety of abnormal thermal environments. This controlled environment provides an ideal setting in which to develop and validate response models.

## ROCKET SLED TEST FACILITY (RSTF)

The RSTF simulates acceleration, aerodynamics, and high-velocity impact in a controlled environment. The RSTF is comprised of a 10,000-ft track for high-velocity tests and a 2,000-ft railroad gauge track for handling very large items and slower speeds.



## CENTRIFUGE COMPLEX

The Centrifuge Complex simulates launch and atmospheric reentry environments, aircraft maneuvering accelerations, crash and impact decelerations, and other acceleration environments. The complex consists of two centrifuges, a 29-ft radius, indoor centrifuge and a 35-ft radius, outdoor centrifuge.



## DROP/ WATER IMPACT FACILITY

The Drop/Water Impact Facility simulates gravity drop and accelerated impact environments on land and water surfaces. It is used to conduct studies of hard surface impacts, water surface impacts, underwater submersion, and underwater explosive effects.



## TERMINAL BALLISTICS FACILITY (TBF)

The TBF is used for environmental, safety, and survivability testing for nuclear weapon applications and Work-for- Others customers.

